

### Remarks

In the instant non-final Office Action dated September 15, 2008, claims 3, 13, 22-23 and 25 stand rejected under 35 U.S.C. § 112(2); claims 1-2, 4-6, 9-12, 14-18, 21 and 24-25 stand rejected under 35 U.S.C. § 103(a) over the Hwang reference (U.S. Patent No. 6,678,511); and claims 3, 13 and 22-23 stand rejected under 35 U.S.C. § 103(a) over the Hwang reference in view of the Chan reference (U.S. Patent No. 6,920,471). The Office Action notes an objection to claim 23 for being a duplicate of claim 22; however, this is incorrect as the claims are different from one another. Applicant traverses all of the rejections and, unless stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action.

Applicant respectfully submits that the objection has no basis. Claim 22 is directed to an infinite response, whereas claim 23 is directed to a finite response. Accordingly, the claims are not duplicative. Applicant requests that the objection be removed.

Applicant respectfully traverses the rejections under 35 U.S.C. § 112(2). Regarding claims 3, 13, and 22-23, for the rejection to stand the Office Action must show that using a digital filter in a composite filter is not clear or definite. Applicant respectfully submits that limitations directed to a composite filter of which one filter is a digital filter are clear on their face. Notwithstanding, Applicant's disclosure teaches that one filter can be a digital filter (*see, e.g.*, FIG. 11 and paragraph 0036 of the published application). Applicant does not understand the rationale behind the apparent confusion expressed in the Office Action. The language appears clear and definite (*e.g.*, both the term "digital filter" and the use of the term would be understood) and the Office Action does not provide clarification as to the point of confusion. Applicant requests clarification of the basis of the Office Action's rejection pursuant to M.P.E.P. 2171: "If a rejection is based on 35 U.S.C. 112, second paragraph, the examiner should further explain whether the rejection is based on indefiniteness or on the failure to claim what applicants regard as their invention;" and to M.P.E.P. 2173.02: "an analysis as to why the phrase(s) used in the claim is "vague and indefinite" should be included in the Office action." The record explains that one of the filters can be a digital filter and the skilled artisan would readily understand the scope of such claim limitations. Accordingly, the

understand the scope of such claim limitations. Accordingly, the claim limitations are clear and definite and Applicant requests that the rejection be withdrawn.

Regarding claim 25, the rejection relies upon the mistaken assertion that the skilled artisan would understand neither that a low-pass filter can be transformed into a band pass filter nor how this transformation can be performed. Applicant requests clarification as to the rationale behind the asserted rejection as the claim language appears clear and definite. Applicant submits that these aspects are clear and distinct (*see, e.g.*, FIG. 9 and paragraph 0032-0033 of the published application). As explained, a low-pass filter can be transformed into a band-pass. The skilled artisan would recognize a number of different transformation techniques to perform such a transformation (*e.g.*, modifications to a filter circuit that can be derived from modifications to corner frequencies). Thus, limitations directed to such a transformation are clear and definite.

For at least the aforementioned reasons, Applicant submits that the claim limitations are clear and definite and requests that the rejections be withdrawn.

Applicant respectfully traverses each of the 35 U.S.C. § 103(a) rejections for failing to show correspondence to each limitation. Hwang fails to teach that the orders of the filters differ by exactly one. Hwang only discloses a few exact implementations and does not otherwise disclose a range (leaving an infinite number of possibilities for the skilled artisan to experiment with), thus there is not any evidence of an overlapping range. The only concrete examples provided by Hwang show filters that differ by significantly more than one. It is not logical to apply a routine experimentation standard that could be similarly applied to exclude an infinite number of possible combinations of cascaded filters when Hwang discloses only a select few working examples.

As discussed in M.P.E.P. § 2144.05, even where there are overlapping ranges, the obviousness can be rebutted by a showing of criticality. Applicant's disclosure teaches that implementing a composite filter with orders of filters differing by exactly one is a critical aspect of the claimed invention. The surprising results of this specific configuration are shown in Tables 1-3. Applicant has therefore rebutted any showing of obviousness due to overlapping ranges. Accordingly, the Hwang reference does not render the claimed invention obvious.

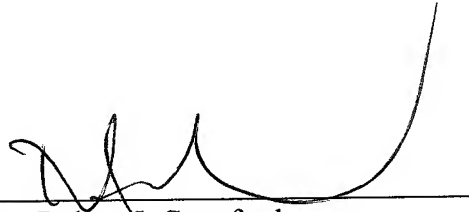
Applicant further notes that it appears that the only working filter examples shown by Hwang dealt with a specific concave-shaped ripple. In view of this limited disclosure, the Office Action has not provided evidence that suggests that experimentation with such ripple characteristics would lead the skilled artisan to filters differing by exactly one. As explained by M.P.E.P. § 2143 a requirement for showing that a combination of elements is obvious to try is that there are a finite number of identified, predictable potential solutions. Hwang does not teach a finite number of filter combinations. Thus, the experimentation suggested by the Office Action would unduly include experimenting with an infinite number of possibilities. For at least the aforementioned reasons, Applicant respectfully submits that the rejections are improper and requests that they be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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